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MONTANA Wildlife

STATE DOCUMENTS

VOL II No. 2

Official Publication of
the Montana Fish and Game Department

BABES OF THE WOODS

MONTANA FISH AND GAME DEPARTMENT

Official Publication

State of Montana

John W. Bonner, Governor

MONTANA FISH AND GAME COMMISSION

Edward M. Boyes, Chairman

Walter Banka — Thomas S. Morgan

William T. Sweet — Manson H. Bailey, Jr.

Robert H. Lambeth, Secretary

The Commissioner's Message

Montana's fishing resources, contained in 1500 lakes and more than 15,000 miles of fishing streams, were meant for the enjoyment of all its residents and the additional thousands of visitors who annually participate in the sport of fishing.

Montanans have a characteristic friendliness which is but a reflection of the consideration and respect shown by others. However, one careless individual can easily tip the sensitive balance of management regulations or perhaps destroy the more intangible favor of Montana land holders' hospitality.

A good sportsman obeys not only the rules of nature and the state but also exercises care, discretion and thoughtfulness for the possessions of others. A good sportsman always realizes that fishing, whether on public domain or private land, is not a right—it is a privilege.

William T. Sweet

Montana Wildlife

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Summer Issue — 1952

Cover Pages

Our fisherman's reward for his skill and patience is pictured on the back cover. This fine catch was taken from the cool recesses of the Madison River in the county of the same name. With headwaters in Yellowstone National Park, the Madison River stretches for 200 miles and provides some of the world's finest trout fishing in its course to join the Missouri. Rainbow, loch leven, brook and native cutthroat trout as well as grayling predominate in its slow, easy water.

NAEGELE PRINTING CO., HELENA, MONT.

The Life of A Game Commissioner

What have I done, I ask, that I deserve such fate
I'm just a common fellow, but now let me relate
The trials and tribulations, the cares and worldly woes
The unkind salutations, that my Commission knows.
Say there, says one, "Go kill those birds, they're eatin' up my corn"
Another voice, "We want more birds": Why was I ever born?
And if the fish ain't bitin', it's because there's none to bite.
Yet I know there's plenty of 'em, I can't give appetite.
And if the trees are buggy, and the weather isn't good,
It's because the Game Commission isn't doing all they could.
Says another brainy fellow, "Better set the season soon."
Jumps up another yippin', "Set it late, or it's your doom."
You'll catch it if you do it, and you'll regret it if you don't.
You're a "bloomin' politician", if you will or if you won't.
Even for all acts of Nature, the Commission is to blame.
I don't know why I do it, but I love it just the same.
But we all keep workin', anyway, for our birds and the fish,
'Cause down at heart, we all have got a common eager wish,
To see our State a garden spot of beauty, fish and game,
So tho' my job's a crazy quilt, I love it just the same,
Our hopes and dreams they're all the same no matter what your name
'Cause we all are aimin' upward, our target is the same.
So get on board my fellow man, in fact, let's all go fishin'
But please, dear sir, if they don't bite, don't blame the Game Commission.

—Paul T. Gilbert, *Outdoor Nebraska*

Hail and Farewell

William Sweet's father arrived in Montana via steamboat on the Missouri River and after freighting by ox team between Fort Benton and Virginia City for several years, he settled on a ranch near Boulder where Bill was born, August 13, 1885.

Following his graduation from Boulder High School in 1900, Bill Sweet entered the wholesale grocery & fruit business in Butte where he remained until his retirement in 1950.

William T. Sweet

He has always had a keen interest in Montana's fish and game and for 15 years operated a stock ranch and fish hatchery near Wilder.

Most of his leisure time is spent indulging his favorite hobby—"shooting" wildlife with his movie camera. Many Montana sportsmen have seen his film footage privately or at clubs.

His wife, Lulu, is an active sportswoman and accompanies him on most of his outdoor trips, bringing in her own deer and elk every year.

Mr. Sweet is a member of the Butte Masonic Lodge, Elks Club, Pioneer Club, Chamber of Commerce, Rocky Mountain Sportsmen's Club, Butte Angler's Club, Butte Rod and Gun Club, the Wholesale Grocers Association and is a charter member of Butte Kiwanis.

One of the youngest commissioners ever appointed in Montana is 32 year old Manson H. Bailey, Jr., whose profound belief in the western way of life and sincere concern for the wildlife resources of the state rival many other sportsmen with more years' experience.

His deep interest in Montana's welfare stems from his parents, both of whom proved up homesteads near Glasgow.

In the Glasgow high school, Mr. Bailey was an active member of the 4-H Club and the Future Farmers of America. From 1942 to 1946 he served in the U. S. Army with the 83rd "Thunderbolt" Division.

In conjunction with his cattle ranch, he is enrolled in the Veteran's On-The-Farm training program.

Manson H. Bailey

He is a member of the Valley Sportsmen's Asociation, a supervisor and vice-chairman of the Nashua Soil Conservation District, president of the Valley Ridgerunners Saddle Club and past secretary-treasurer of the Northeastern Montana Race Association.

His wife, Betty, readily acknowledges his popularity with the young people of Glasgow where he is a member of the advisory council of the F.F.A. chapter and instructor-caller for a square dance class.

On April 11, 1952, William T. Sweet and Manson H. Bailey, Jr. were appointed to succeed William Carpenter and Elmer Johnson as Montana Fish and Game Commissioners.

This is our salute to these two former Commissioners for their accomplishments and a warm welcome to those who will now assist the other three members of the Commission—Chairman Edward M. Boyes, Thomas S. Morgan and Walter Banka—in formulating wildlife policies.

One of the best known sportsmen in Montana and the western states is Bill Carpenter of Butte. His is a long and varied career over nearly half a century devoted to wildlife restoration and includes many "firsts" in fish and game conservation.

W. C. Carpenter

He became interested in wildlife of the state shortly after the turn of the century when he joined several Butte sportsmen to help restore grayling fishing in the Big Hole River. This group became the Butte Angler's Club in 1910. Mr. Carpenter held several offices in this organization including a 17-year term as president.

Among his past activities are the first elk plant from Yellowstone Park to Mount Fleecer, the first plant of rainbow into the Big Hole River and the introduction of fall spawning rainbow into Montana.

He was named "Sportsman of the Year" by the Libby Rod and Gun Club in 1951 and in June he was accorded one of the highest honors of the Western Association of State Game and Fish Commissioners—honorary life membership, awarded only once before in the history of the Association.

Elmer Johnson shares with Bill Carpenter an eleven year record of Commissioner service, longest in the history of the Montana Fish and Game Commission.

Appointed in 1941, shortly after the Montana legislature granted broader regulatory powers to the Commission, Johnston spearheaded wildlife restoration projects to improve fish and game resources in eastern Montana. He also served for six years as Commission chairman.

Mr. Johnson, originally from Minnesota, attended schools there and in San Francisco before establishing a plumbing business in Glasgow. He expanded this business into several northern Montana cities and has handled many major plumbing and heating contracts in the state.

Elmer Johnson

He has long been active in Montana's sportsmen's groups, acting as secretary for 15 years in the pioneer Glasgow Fishing Club. He holds memberships in the Valley Sportsmen's Association, Montana Wildlife Federation and many civic organizations. As a Commissioner, he has represented Montana at six national wildlife conferences.

Montana Sportsmen's Projects

SECOND IN A SERIES

Within a fifty mile radius of Great Falls are five roadside signs designed to make the public aware of Montana's fine wildlife species and promote wise use of these resources.

These educational displays are the result of an enthusiastic sportsmen's club which enlisted the help of one of Montana's outstanding wildlife artists to illustrate in vivid portraits some of the state's big game animals.

The Cascade County Sportsmen's Association, under the direction of its former president Ted Foss and with the co-operation of Warden Supervisor Truce Emett, planned the large attractive signs as a means of carrying a conservation message.

Signs were to be rustic and carry a short slogan, such as "Obey Your Game Laws" or "Be Careful With Fire" But above all, the project committee stressed "eye appeal" for the signs.

To accomplish this, artist Les Peters of Great Falls was asked to illus-

trate the signs with large color paintings depicting various aspects of Montana's wildlife.

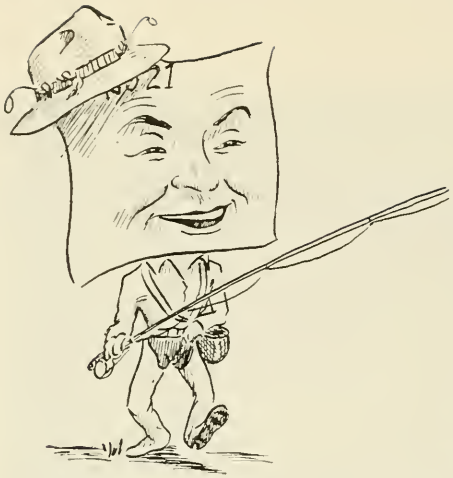
Peters was keenly interested in the project and agreed to donate his time and skill toward making this educational effort a success. Under his deft brush, five big game animals came to life on the wooden signboards. These boards are of two sizes, two by four feet and three by five feet.

The animals—an elk, whitetailed deer, big horn sheep and pheasant—were artistically framed with natural wooden posts by the Cascade County sportsmen and placed along the highways near Augusta, Cascade, Armington Junction, Sun River Canyon and Choteau.

Now visitors and residents of the state can see art, education and wildlife combined to please the eye and impress the memory.

Certainly to be commended for this fine contribution are the Cascade County sportsmen and artist Les Peters for an outstanding club project.

Many compliments have been received by the Cascade County Sportsmen's Association for their series of wildlife signs placed along Montana highways. Two of the displays are shown on this and the opposite page.



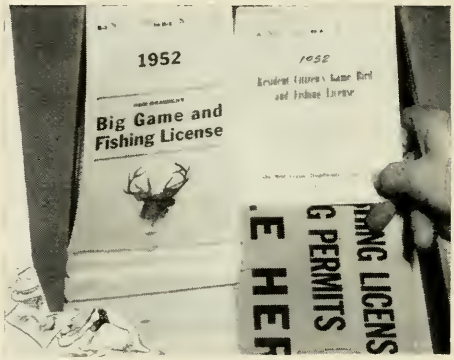
The Life of a License

Purchasing a hunting or fishing license in Montana is a relatively simple procedure. But the task of mailing supplies of these licenses to authorized dealers throughout the state is a laborious operation.

Immediately after the close of the Montana Fish and Game Department's fiscal year on April 30, initial shipments of new licenses are counted by serial number and packaged.

Prior to actual assembly of packages, a mailing list is compiled which lists by receipt serial numbers and total number of each type of license every dealer should receive, based on volume sales of the preceeding year.

Serial numbers of every license must be recorded. Above, Lucile Dunn (left) and Marian Wutzke (right) assemble packages.

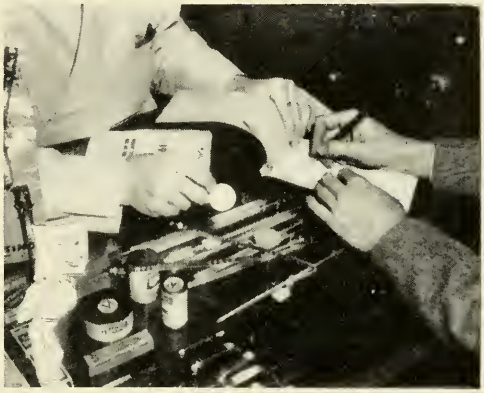


Licenses, mailed in heavy pasteboard boxes, this year totaled 282,430 for all types. More than 500 packages were prepared.

Package contents include licenses for resident bird and fish, resident big game, non-resident three-day fishing, non-resident seasonal fishing, non-resident bird, non-resident big game and fishing as well as shipping permits, fishing regulation booklets, instructions to agents, application forms for certificates in lieu of lost licenses, fish and game code books and dealers' display signs.

Margaret Jennings and Dave Dennis pile the packages higher and higher (above) because all shipments must be held until a single mailing can be made from the Helena offices.

Two truckloads of packaged licenses were delivered at the Post Office to assure dealers the impartiality of a simultaneous mailing. A receipt for postal authorities completes the job.



All types of Montana hunting and fishing licenses go on sale May 1 and may be purchased from any authorized dealer, game warden, warden supervisor or directly from the Fish and Game Department in Helena.

Now equipped with license, rod, reel, boots and boat, these fishermen (at right) try their luck on the Yellowstone River. Today's legal limits for both fishermen and hunters are made possible by wise expenditure of Montana's million dollar license revenue in the management of Montana wildlife resources.

Those South of the Border Ducks

By Wynn G. Freeman

A January inventory has been used for a number of years to determine the number and welfare of continental waterfowl populations. The United States Fish and Wildlife Service directs this operation and assembles data from the various states and cooperating private agencies which carry out the census.

Information is used to determine what effect the hunting season had on the overall waterfowl population. In addition, it serves as a guide for number of birds that can be expected on the breeding grounds.

Because a major portion of North America's waterfowl spend the winter months in Mexico, it has become the problem of the federal government to count these birds.

During the most recent inventory, completed in January of this year, the U. S. Fish and Wildlife Service sent its capable pilot-biologist, Robert Smith, to direct the activities of the census takers and fly the plane over the water areas. Dr. A. Starker Leopold of the University of California represented the Duck Hunters Association of California and the author, Wynn Freeman, who is the waterfowl biologist for the Montana Fish and Game Department, represented state game departments of the eleven western states.

This trio left California in a twin-engine amphibian plane on January 4, 1952, to count ducks in Mexico. The survey covered the waterfowl wintering areas along the west coast and the highland lake areas of central Mexico. A different team censused the area along the east coast of Mexico at the same time.

Obviously, every duck in Mexico could not possibly be counted, so a special effort was made to equalize the intensity of the survey over the same areas on a year to year basis.

As the census crew proceeded along the coast, it was easy for them to see why waterfowl fly to Mexico for the winter. The air was balmy and most important of all, there was an abundance of water along the interior coastline. However the birds seemed to congregate on certain specific areas. Even the various species preferred one water area over another. The pintails appeared to congregate and prefer the agricultural section around Obregon. Another area was called "Shoveller Heaven" by the pilot as well it could have been for more than 100,000 shovellers were counted there. An area near Acapulco was occupied by over 75,000 ruddy ducks. These same species, however, were also observed scattered throughout the entire course of the census.

Pintail, shovellers and scaup made up 67 percent of the birds observed during the census, the remaining 33 percent were teals, baldpates, gadwalls and the various diving ducks. Noticeably absent were the mallards

and Canadian geese. These species winter north of Mexico and were seen only in very small numbers south of the border. The goose population in Mexico was made up almost entirely of white-fronted and snow geese.

After the totals were compared, it was determined that a slight increase in winter duck population had been made over the previous year and the goose population of Mexico was about the same as last year. Most of these birds migrate in the Pacific Flyway.

Some inquiry was made into the waterfowl hunter regulations of Mexico which are improving steadily. Unfortunately, U. S. newspapers and magazines have given considerable amounts of unfavorable publicity to reports of excessive waterfowl kills in Mexico.

Actually, the Mexican harvest of wintering ducks is negligible. Various estimates show that the total waterfowl kill for one season in Mexico did not exceed 150,000 birds. In addition, an estimated 90 percent of these birds were taken by transient hunters from the United States. The average individual Mexican is not a waterfowl hunter primarily because he is not in a financial position to pursue ducks as a sport or a hobby.

The Mexican Game Department has been a small organization in the past but their sincere effort at law enforcement is having a perceptible effect. Their efforts are due for a considerable boost in the near future as the Government of Mexico has authorized a sizeable increase in the game department budget. With this increase, violations by their own citizens as well as visiting hunters are expected to be cut to a minimum.

How many ducks do you see on Ninepipe Reservoir below? The U. S. Fish and Wildlife Service census crew, assigned a similar problem on the Mexican wintering grounds of waterfowl, simplified counting by aerial surveys.

A helping hand for ranchers in fencing haystacks to prevent game from damaging domestic forage.

Although salt for game species is usually dropped from airplanes, this important mineral is occasionally packed on foot into remote areas.

Trained dogs assist the warden in tracking down predatory animals which menace livestock and game animals.

Often assisted by sportsmen, wardens sto

MONTANA GAME

Many people think of game ward of apprehending violators of fish and picture story presents some of the m are also in the routine of Montana's division. In addition to the activities warden assignments include recordi men, school children and other inter operation of checking stations.

Confiscated game meat, taken illegally by unsc for st

ntana streams with hatchery reared fish.

Beaver damage reported to the game warden result in transplanting this industrious little animal.

/ARDENS

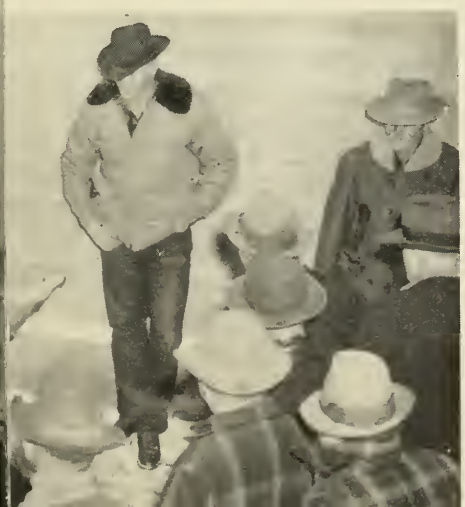
nly in the capacity
e regulations. This
other duties which
.e law enforcement
wn on these pages,
ldlife conditions, meeting with sports-
groups to promote conservation and

—All photos courtesy Ernst Peterson, Hamilton.

Game animals sometimes die from natural factor and game wardens assist biologists in determinin cause of death and take remedial measures.

us hunters, is sold at auction by game wardens
venue.

"Hunting" with binoculars is one way to study the habits of virtually inaccessible mountain goats.



New Horizons For Goats

By Ken Thompson

Mountain goats, Montana's agile masters of the crags and cliffs are being literally "lifted" from their native homes and "dropped" into new regions.

This project which is in its 12th year is part of Montana's Wildlife Restoration Program to distribute game species into all parts of the state where food, cover and other conditions are suitable. Practically all of the state's game species have been captured and transplanted but in no species is the element of danger and excitement greater than in the mountain goat trapping operations.

While Montana's efforts to build up the populations of Rocky Mountain goats are relatively new, the real reason for the work starts centuries ago. Somewhere back in the dark geological ages, the group of mountain - frequenting antelope, of which the European chamois and the Rocky Mountain goat are members, developed. In the course of their development, the various family branches became residents of different parts of the world, and in North America, the genus **Oreamnos** became established. Actually this animal is not a goat but has been so named because of its resemblance to the familiar barnyard animal.

By the time the whiteman started pushing west, Rocky Mountain goats had spread out over the northern portions of the Continental Divide

and occupied such niches in this mountain chain as were good goat habitat. However, many isolated mountain ranges in Montana had all of the characteristics of goat habitat—but no goats.

It is believed that the broad flat valleys and prairies between these mountain spurs may have been factors in discouraging, if not prohibiting, the natural migration of goats to new areas.

Opportunity To Help Nature

Here in these goatless areas existed an opportunity—a challenge to game managers to step in and help Nature meet the increasing demand by sportsmen for more and more game. The challenge was accepted by the Montana Fish and Game Department in 1940 and initial efforts to procure and transplant Rocky Mountain goats were started.

R. F. "Bob" Cooney, director of Montana's Wildlife Restoration Program, was in charge of the state's first goat transplanting project.

After harrowing escapes while attempting to capture young goats in their cliff homes, the crew decided a trap was the only answer. So tools and wire were loaded on pack horses and they headed for the mountain goat range.

The trap was constructed at a site selected around a "lick" where mountain goats came each year seeking some form of mineral in the native clay. With some experimentation, it was found that goats could be enticed into the trap by using regular block salt.

In this manner the first goats were trapped. Then, enclosed in special crates, the captured animals were packed by horses and mules over tortuous mountain trails to the valleys below and trucked to their new homes—a trip requiring two full days and nights.

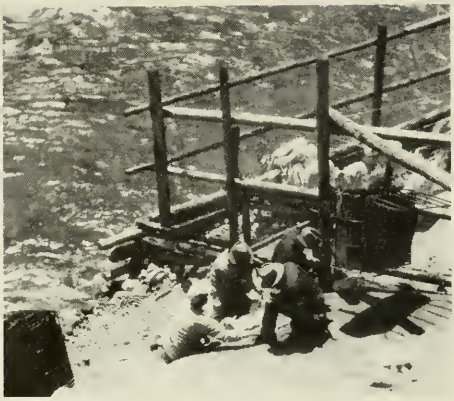
The Montana Fish and Game Department was now in the goat trapping business. But like all good businesses, it expanded and grew, more efficient methods were needed, new populations of goats had to be tapped.

Most promising of the state's goat ranges was the rugged, primitive Bob Marshall Wilderness area. But here the job of transplanting the animals looked almost impossible for it meant three days by horseback to haul captured animals to a road. So new ways and means had to be devised and the entire Wildlife Restoration Division of the Montana Fish and Game Department went to work on the problem.

Special Equipment

With the specially designed equipment constructed by Department shop foreman Rex Smart, a four man crew, headed by biologist Lloyd "Mac" MacDowell and field technician Jim McLucas, headed into the back country. Deep into the headwaters of the South Fork of the Flathead they brought their pack string loaded with wire, tools and camping equipment. Where the Little Salmon river empties into the Flathead, they constructed their trap, a contrivance of mesh wire and native lodgepole.

It was about twenty feet square, eight feet high and was built around



Before being crated for their journey to a new home, goats are tied securely and a section of rubber hose slipped over their horns to prevent injury to themselves or the crew. A sedative keeps the animals quiet.

a natural "lick." White salt blocks were placed in the finished trap and these proved irresistible to the shaggy mountaineers. Goats were caught as they had been back in 1940, but this time something new was added. This was the collapsible life rafts and small, but powerful, aircraft which added a modern touch.

Special permission was obtained from the United States Forest Service to land a non-government plane on the closed airports of the wilderness area. Plans were now complete to give Mr. Mountain Goat the full treatment by land, by water and by air.

Let's follow this crew on a thrill-packed journey with a cargo of goats.

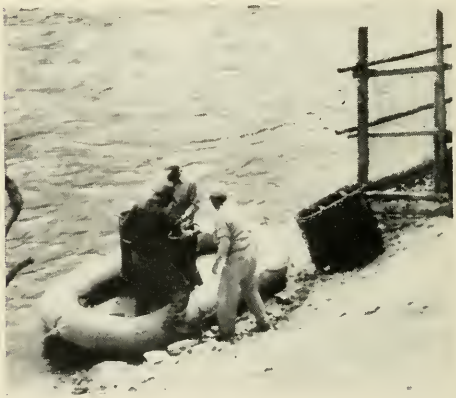
The trap is set up. A wire trigger release for the hinged gate is attached near a salt block. During the night a small group of goats enter the open gates seeking blocks of salt. One of them stumbles over the wire releasing the gates and they are captured.

At daybreak, the crew finds them with shining horns lowered defiantly. As the men approach, the captive animals stomp their feet and move forward threateningly. Great care must be taken for one sharp thrust of those dagger points could be fatal.

Cautiously, one of the crew selects a goat and with a quick flip of a rope or by "taking the goat by the horns" a captive is secured. The struggling animal is carried outside the trap where it is blindfolded, hobbled with heavy leather straps and a section of rubber garden hose is slipped over the horns. This serves as a convenient handle and eliminates the danger of goring.

Now modern medicine enters the picture. Biologist McDowell, using a hypodermic needle, carefully administers sodium pentabarbital and Mr. Oreamnos slips off into goat slumberland.

Goats are then lowered into light aluminum crates which are lashed in place in the center of the collapsible raft for the goats must not get



Collapsible rubber boats transport mountain goats from the trap to a wilderness landing field and transplanting operations continue by airplane.

wet. Jim McLucas, veteran of many marine landings, takes the helm and they shove off into the snow-swollen current of the mighty Flathead.

The craft swirls down the stream past submerged boulders and snags, through narrow gorges with its crew guiding it down the six miles to Black Bear in thirty spray-soaked minutes. At the Black Bear landing point, the raft is brought to anchor. An ingenious cart is unfolded and all the goats, still dry, are trundled about one-quarter of a mile to the air strip.

An airplane, called by short-wave radio, is standing by. Goats are loaded into the plane and it noses its way out of the deep wilderness canyons.

Near the end of the line, goats are removed from the plane and loaded into trucks for the last few miles to the release site.

With this new procedure the captured goats are removed from their home, boated down the river, flown out to another airport where pickup trucks await them for final delivery to their new home —all in a matter of a few hours.

At the designated sites, the white-bearded passengers are released as the sedative injected at the trap has by now worn off. The goats look around skeptically, then amble off goat-wise to investigate their new domain.

Over 150 mountain goats have been laboriously captured in Montana. Several new areas have been successfully established. The most successful one to date has been in the Crazy Mountains where an original plant of twenty-two goats has increased to an estimated 125 animals. Other releases have been made in the Beartooth Plateau, Spanish Peaks, Gates of the Mountains.

Fifteen were sent as far as Colorado in exchange for an equal number of that state's bighorn sheep.

What does all this mean to the sportsmen everywhere?

First, a valuable trophy animal is stocked in areas they probably would never reach without man's help. Second, this increase in habitat may be the salvation of a species which seems to be holding its own by a narrow margin.

So if a strong-lunged climber of this or a future generation finds a majestic mountain goat in the finder of his camera or the cross hairs of his 'scope, he can thank the rugged lads who have "lifted" these animals from their native home and "dropped" them into an even better one.

Glacier Park Conference

For the first time in more than two decades, Montana played host to representatives of fish and game departments of eleven western states and the western Canadian provinces when the Western Association of State Game and Fish Commissioners selected Glacier National Park as the site for their 32nd annual conference. These annual meetings are designed to bring together technical men in administrative, wildlife and fisheries fields for discussions of latest techniques, problems and trends in game and fish management. Presented here are a few of the highlights of the June, 1952 conclave.

Montana's Wildlife Restoration Director Bob Cooney and Marjorie Mitchell (above) admire the quiet setting of Swiftcurrent Lake and Many Glacier Chalet, locale of the three-day meeting.

Montana Game Warden and 1951 president of the Western Association R. H. Lambeth (left) and Glacier Park Superintendent J. W. Emmert (center) welcomed guests to the Treasure State. At right is Ben Glading, Association secretary from California.

Montana's Governor John W. Bonner extended an official state welcome to conferees and later talked informally (above) with western Outdoor Writers who met at the same time. Shown are writers Joe Mears, John Willard, G. W. Philpott and Governor Bonner.

Sampling juicy bits of young Montana buffalo at the barbecue sponsored by the Montana Wildlife Federation are (left to right) Carl Shoemaker, National Wildlife Federation director; Dick Wagner and Al Reigel, Montana Federation officials and Chef Lou Hoffman.

The importance of public relations to inform sportsmen of new fish and game concepts was told by Fish and Wildlife Assistant Director of Public Information Jack Culbreath of Washington, D. C. Seated is Commissioner Frank Butler, Vancouver, British Columbia.

—Photo by Roahen

"Who Said The Land Grab Is Dead?" asks C. R. "Pink" Gutermuth, vice president of the Wildlife Management Institute. His talk presented views on the public lands problem experienced by many states. Seated is Commissioner Frank Butler.

—Photo by Roahen

California's Game and Fish Director Seth Gordon introduces Panel Chairman Frank Butler; Willis King of the U. S. Fish and Wildlife Service who spoke on fisheries; and Albert M. Day, Fish and Wildlife director who reported on waterfowl management.

As the three-day conference neared completion, delegates were feted with a banquet (below.) Exceptionally fine after-dinner entertainment was presented by the Montana State University School of Music.

—Photo by Roahen

Pheasant Propagation in Montana

By William R. Bergeson

The history of the pheasant in Montana dates back to 1895 when interested individuals released birds obtained primarily from Oregon into several areas in the western portion of the state.

It was not until 1929, when the first game bird farm was established at Warm Springs, that impetus was given to large-scale pheasant propagation. By the following year 6,146 birds were distributed to every one of Montana's 56 counties. By 1938, the second game bird farm went into operation at Billings and in 1942, the third and last game bird farm was completed at Fort Peck.

In the intervening years since 1929, the three State Game Farms have liberated a total of 452,334 pheasants. Counties receiving the largest numbers of birds have been Cascade, Flathead, Yellowstone and Ravalli with 13,000 birds each.

Production Peak

In 1947, total production for all farms reached a peak with 46,500 birds, but since that time the emphasis has been on better quality and production is held to about 10,000 birds at each farm.

Broodstock for the current year's operation is selected from the preceeding year's production and held over the winter at each farm. These birds are placed in large pens at a ratio of one cock to six hens. Normally, hen pheasants will start laying eggs around the first of April and full egg production is underway by the middle of that month. One hen will produce approximately 40 eggs through a two-month laying period.

Incubators and Brooders

Most of the game farm pheasants are hatched in incubators and raised in brooders. After hatching in the incubator, the chicks are confined in brooder houses. When they are ten days old, the doors leading to the large wire-enclosed pens are opened and the chicks are allowed to forage but are herded back and confined to the brooder houses each night.

After the fourth week, artificial heat under the hovers in each brooder house is discontinued unless the weather is unusually cold. By the time the chicks are six weeks old they are more or less on their own and free to wander and forage in pens.

When the chicks are ten weeks old, they are caught, crated and moved to the release site within the district served by each of the farms.

The budget for the three game farms, which includes costs of operation and salaries, was $59,500.00 last year.

When 30,000 pheasants are produced, reared to ten weeks of age and liberated, the cost will be about $1.98 per bird.

Out of every 100 game farm-reared cock pheasants, how many end their days at the business end of a hunt-

er's shotgun?

Banding studies conducted over the state for several years have shown that returns range from a state-wide 3.5 percent to 41 percent in areas where individual releases were followed closely. Returns vary from these low percentages to higher numbers depending on the time elapse between release and hunting season.

Gallatin Valley Study

A detailed small scale study was conducted in the Gallatin Valley during the years 1948-50 which indicated a 14.4 percent return of released cocks based on band returns secured at hunter checking stations, hunter reports and trapping.

Ordinarily, about a 30 percent harvest is the highest return ever secured on ten week old pheasants planted in August on the best pheasant range where wild birds are already found.

Of the 15,000 cock pheasants released annually in the various covers of the state, less than 4,500 of them found their way into the hunter's bag if the 30 percent return figure is accepted. During the 1950 season, an estimated 211,250 cock pheasants were bagged. If it is assumed that each one of the 15,000 cocks released during the summer and early fall of 1950 was shot by a hunter, then it is evident that game farm pheasants contributed only .07 percent to the total kill.

Even on a bargain-price basis of $1.98 per bird, it can easily be seen that it is not economical to artificially propagate pheasants in quantities that will assure a bag limit of three or four cocks to every hunter holding a $3.00 Resident Game Bird and Fishing License. With facts proving that it takes from three to seven cocks planted to return one to the hunter's bag, the costs rocket to $6.00 to $14.00 for each cock bagged directly from farm planting.

When the game farm releases which contribute about 4,500 birds to the bag out of the 15,000 cocks released annually are compared to the total take of over 200,000 pheasants, the importance of natural or wild reproduction cannot be over-emphasized.

There are no accurate figures available on the survival of game farm reared hen pheasants because the best source of information is through analysis of hunter checking station data and this source is obviously unavailable for the legally protected hen.

Pheasants Like a Crop

Pheasants, like any other crop, are a direct product of the land and are directly dependent on the carrying capacity of their range or habitat. Once game farm reared pheasants have been successfully introduced into suitable areas and have become established, there is no need to continually release more birds into these same areas year after year because the range or habitat will support only so many birds and no more.

Even if the habitat seems to provide all the requirements needed for pheasant survival, how much can be accomplished with artificially reared pheasants? In the first place, it must be remembered that the numbers of birds that are supplied for stocking

are very small in comparison with the numbers already present in the wild. If there is already a sparse population, does it help to add to it by releasing more birds? The answer is No. If the habitat will support only the number of birds present, then no amount of stocking would build such an area up to a point comparable to areas providing good habitat.

To continually pour more birds into an area already well-stocked with wild birds, or into areas where the carrying capacity is limited, is much the same as pouring water into a full bucket. The only solution is to make the bucket bigger.

Populations Flucuate

Pheasant populations have been and always will be in a continued state of fluctuation as a result of such uncontrolled factors as changes in land use, winter weather conditions and weather conditions during the critical nesting period. Land use changes are well-illustrated by the depression period of the 1930s and the attendant closures of farm lands which had a major effect on pheasant numbers. As a result of farm crop curtailment, large blocks of land were removed from production on most farms in pheasant producing areas.

Unharvested grain, sweet clover and weed fields provided ideal cover for pheasants and they reached all-time highs in numbers by the early 1940s. Conditions changed rapidly during World War II when nearly all restrictions on agriculture were removed and increasing amounts of land were brought into production. As a result, many areas such as the Yellowstone Valley where pheasants were formerly so abundant that special seasons were held to reduce damage, former populations levels have never been duplicated.

What Is The Answer?

If large scale propagation programs do not provide the pheasant hunter's Utopia, what is the solution? Probably the answer lies in pheasant habitat improvement.

Here again the limiting factor is cost, and it must be recognized that habitat improvement is costly as well as slow in producing results although these results when achieved are permanent in nature. Vast treeless areas east of the Continental Divide, where all the requirements for pheasants are met with the exception of permanent winter cover, could be improved with the addition of shelterbelts and wildlife plantings. In addition, the future prospects of new irrigation projects such as the lower Marias will provide thousands of of acres of potential pheasant habitat.

Can game farms ever be eliminated from the pheasant production picture? The swing of the pendulum which is forcing more and more of the burden of pheasant production back to nature does not signify that the game farm system will not be with us for many years.

Game farms will always be needed to restock areas where natural disasters have dangerously lowered the existing broodstock and improved habitat areas will need introductions.

Fleet Feet

Careful management plus the friendly influence of Montana ranchers has returned our antelope from near extinction to today's herds numbering more than 50,000 animals. First major permit hunt allowed 750 antelope to be harvested in 1943. This year 18,070 permits will be issued.

One of Montana's finest big game trophies is the pronghorn buck. Hunters can easily distinguish bucks from does because the male antelope has much larger horns, darker face mask and dark markings below the ear.

Twin fawns are more common than single births and triplets have been observed.

"Son, believe me, it's nice just to see them around the country again."

Fred Williams (above), pioneer sportsman with over fifty years experience in the Gallatin Canyon, has been continuous chairman of the Gallatin Conservation Committee since its formation twenty years ago.

Game Guardians of Gallatin Canyon

by Bob Cooney

Twenty years ago, a war was waged in the Gallatin Canyon. Battlelines were clearly drawn—game versus livestock. Each side had strong supporters armed with plenty of arguments.

The issue centered on a major elk herd which was being maintained in the Canyon, on rangeland long used by cattle and sheep.

The two interests had clashed headon and no one seemed able to come up with a solution. After a meeting of three days and most of two nights, the deadlock still held and tempers drew taut.

It was at that point that the formation of a committee was suggested which would have representation from all the interested groups: sportsmen, ranchers, summer home owners, dude ranchers, Forest Service, Park Service, a railroad company which owned every other section in a portion of the Canyon and the Fish and Game Department. The group that was formed was called the Gallatin Conservation Committee.

Its primary function was to solve the immediate problem of how domestic and game animals could share this range. However, under the able leadership of Fred Williams of Bozeman, this group not only un-

tangled the snarled stockman-sportsman quarrel, but has gone on to aid in working out complicated game problems in their area as they have arisen ever since.

During these twenty years, the group has met each spring and early fall. In the spring, a field check is made to determine the use by elk of critical winter forage. In the early fall, three days are spent on horseback riding over the important ranges. Sportsmen, ranchers, game technicians, forest and park rangers pool their opinions to come up with recommendations for the best management of the wildlife resources of the Canyon.

The highest compliment yet paid to this organization has been the formation of several groups in the state modeled after it. Ten years ago the Assoraka Conservation Committee was formed and has been working with the many complex problems surrounding the huge Northern Yellowstone elk herd.

Down on the Clark Fork, another group has been active for nearly as many years and a fourth was formed in the Bitterroot. In addition to these, several inquiries have been received from neighboring western states where this idea is now being tried.

There must be something pretty sound in the whole plan that was born in Bozeman many years ago. Two factors seem most important in explaining the continued success of these committees. First, they represent a cross-section of the groups vitally interested and second, they get out into the field to delve into the problems at their source.

Below, members of the Gallatin Conservation Committee ride over Shedhorn on the Gallatin-Madison divide on their early fall inspection trip.

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